people may be able to compensate for a reduction in skills by changes in driving behavior. Assessment should focus on the ability to compensate for any reduction in function. For the assessment of driving ability a multidisciplinary team is needed. Enabling the person with disability to drive a car is an integral part of a complex rehabilitation program. The experience in the driving assessment from the University Rehabilitation Institute in Ljubljana will be presented with the emphasis on strokes, which are a common cause of disability in old age and the most common reason for driving assessment referrals. For functional assessment the Mediatester is used, special standardized platform, which is very useful and reliable regarding different reaction times, strength in upper and lower limbs, field of vision, etc. Many times an experienced clinical psychologist, skilful in the use of cognitive tests, is included.

Further reading

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CO48-005-e

Training in rehabilitation in an ageing low-resource country

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In developed countries populations are ageing rapidly but majority of life is disability-free. In developing countries a higher proportion of a shorter life is lived with disability. Doctors working in the 8 major rehabilitation centers in Madagascar were without rehabilitation training until 2011.

The authors met in 2008 to draw up an academic diploma of the University of Antananarivo with a curriculum appropriate to the population. Teaching was largely by staff of the Leeds Teaching Hospitals (UK) intensively 2 or 3 times a year in 2011–2013. It aimed to equip the doctors to work according to modern rehabilitation principles. The major adult conditions were mainly degenerative (backache, osteo-arthrosis, and other musculo-skeletal conditions). The dominant neurological condition was stroke. We taught, using modern methods and the ICF, the specifics of these conditions introducing audit, critical appraisal of publications and the production of self-help leaflets. Doctors examined rigorously all passed. We believe the course has helped produce better rehabilitation of more people with disorders of ageing and that it may be of use in other sub-Saharan African countries. How this may best be done needs discussion.

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Oral communications

CO40-001-e

Stationary geriatric early rehabilitation is well known and well organized in many countries. But is it sufficiently in outcome for patients from all assigned specialists departments? A randomized outcome study of 1651 patients

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Keywords: Early geriatric rehabilitation; Functional outcome; FIM

Purpose.– Is it possible to reach for all stationary geriatric early rehabilitation patients no matter from which department they come from a sufficient therapeutic progress in functional outcome?

Methods.– The retrospective study includes all the patients from 2008 to 2012. The development was measured with the FIM.

Results.– The study contains 1651 patients, 500 orthopaedic patients with an average age of 75.7 years, a residence time from 16,4 days and a FIM development of 81.5 years, a residence time from 18.5 days and a FIM development from 82 to 103 points; 454 neurological patients with an average age of 76.4 years, a residence time from 20,06 days and a FIM development from 76 to 93 points as well as 232 cardiological/internal patients with an average age of 80.3 years a residence time from 17.3 days and a FIM development from 79 to 96 points. The FIM development of all patient groups is 1.21 (±0.13 points) per therapeutic day.

Conclusions.– It is possible to obtain a sufficient functional progress for all patients in stationary early geriatric rehabilitation independently from which specialist department they were overtaken from.

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CO40-002-e

Prevalence of pressure sores in EPHAD in Britanny

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Keywords: Pressure sore; Prevalence; EHPAD; Elderly

The incidence of pressure ulcers increases with age but also because of polypathologies. The population of the Hospitallers Establishment for elderly dependent people seems to be particularly at risk.

Materials and methods.– Five hundred and fifty EHPAD in Brittany were interrogated by a postal questionnaire on their population, human and technical resources, the number of pressure sores on a given day with a description of stages and locations.

Results.– The results are based on 174 structures with a response rate of 31.6%. Mean age is 85.6 years. Mean weighted Gir is 663.6. The day of the survey 858 pressure sores were reported for a total of 14,960 residents, and a prevalence of 5.73%: pressure sores predominate on the heels and sacrum with 41% of stage 1. There was 57.2% of the EHPAD that used a risk scale.

Discussion.– Our study on nearly 15,000 residents finds a comparable prevalence then previous French studies in such structure but lower than prevalence studies of health structures. Location of pressure sores is consistent with literature but with a greater ratio of stages 1 (persistent redness). This highlights the importance of prevention, at this stage.

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CO40-003-e

Training algorithm for elderly patients undergoing surgical treatment

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Keywords: Elderly patients; Perioperative care

Introduction.– The study aimed to improve the results of surgery and reduce hospital stay in elderly patients.

Methods.– The study included 35 patients aged 70.1 ± 6.5 years with routine abdominal surgical intervention, 20 patients of the study group received preoperative preparation course (PPC). After complex preoperative evaluation (abdominal CT, esophagogastroduodenoscopy, colonoscopy, US of the lower extremities veins, chest X-ray, electrocardiography, echocardiography, Holter monitoring, ergospirometry, pulseoximetry, blood pressure monitoring, blood gases, CRP, albumin, glycemic profile), PPC (10 days) was performed, including: interval hypoxic training, training on simulators under cyclic cardiac monitoring, inhalation therapy, halotherapy, psychological counseling for anxiety, individual and group training in the preoperative period.

Results.– The following result of the implemented technique were observed: reduction of ICU stay (2.5 vs. 1.3 days, $P < 0.05$), decrease in postoperative stay (16.5 vs. 12.8 days, $P < 0.05$), earlier activation (89% vs. 42% of patients were verticalized the first day after surgery).

Discussion.– Conducting PPC in elderly patients is an appropriate method of medical preabilitation that helps to reduce the length of stay in the postoperative period in the ICU and in the surgical hospital in general. PPC accelerates verticalization in the first day after surgery.

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CO40-004-e

Abdominal compression in patients with neurogenic orthostatic hypotension

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Keywords: Orthostatic hypotension; Treatment; Abdominal compression
Introduction.– Orthostatic hypotension (OH) affects 5–30% of the elderly. Treatment is difficult and often involves the use of abdominal binders whose benefits are unclear.
Material and methods.– Thirteen adults with neurogenic OH participated in a randomized cross-over trial that assessed changes in median systolic blood pressure (SBP) as subjects shifted from a supine to standing position. Three manoeuvres were performed, supine to standing without binder, supine to standing with an abdominal binder (conventional or adjustable), and self-determined maximal abdominal compression at 5 minutes of standing.
Results.– Supine SBPs (146–153) with or without either of the abdominal binders were comparable. Standing without abdominal compression resulted in a severe orthostatic drop (SBP, - 57 [Inter-quartile Range (IQR), -40 to -76] mmHg). Abdominal compression prior to rising using either the elastic (SBP, -50 [IQR, -33 to - 70] mmHg; $P = 0.03$) or adjustable (SBP, -46 [IQR, -34 to -75] mmHg; $P = 0.01$) binder lessened OH. Adjustment of either binder to a maximal tolerable pressure while standing did not provide additional benefit.
Conclusion.– Donning of an abdominal binder prior to standing can ameliorate OH blood pressure drops but further compression once standing does not provide additional benefit.

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CO40-005-e

Depressive symptoms impact functional outcome in hip fracture patients

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Keywords: Hip fracture; Depression; Functional outcome; Rehabilitation
Background.– Depression is the most common of mood disorders in elderly people. The role of depressive symptoms identified at an earlier stage after hip fracture remains understudied. The aim of this study was to evaluate if depressive symptoms assessed on hospital admission impact early functional outcome.
Methods.– We studied 112 patients who underwent surgery for hip fracture during a 6-month period. Depressive symptoms were assessed on admission to the acute setting using the 30-item Geriatric Depression Scale. The primary outcome measure was motor-FIM at discharge.
Results.– Presence of moderate to severe depressive symptoms (GDS ≥ 20), older age, and female gender were independently related to motor FIM at discharge.
Conclusion.– Increasing levels of depressive symptoms in elderly hip fracture patients influence short-term functional outcome. Failure to identify such patients is a missed opportunity for possible improvement of early functional outcome after hip fracture in elderly.

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CO40-006-e

Effects of management activities on the physical quality of walking with elderly over 80 years, suffering or not from dementia

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Keywords: Physical activity; Dementia; Gait
Objectives.– To evaluate the effects of a program of adapted physical activity, during eight weeks, on the parameters of gait in elderly demented subjects or not.
Methods.– The gait parameters were evaluated in 17 patients aged from 76 to 91 ans (7 demented, D, and 9 non-demented, ND) using Locometrix® before and after a physical activity program based on the balance, muscle strengthening and walking with three sessions per week.
Results.– We show a significant improvement ($P < 0.01$) of the main gaits parameters after the training program for the 2 groups: medio-lateral instability, ND 35 ± 7 vs $27 \pm 8\%$, D 40 ± 12 vs $36 \pm 8\%$; symmetry, ND 147 ± 30 vs 202 ± 35, D 156 ± 64 vs 212 ± 74; walking speed, ND 2.3 ± 0.5 vs 2.7 ± 0.4 km.h^{-1}, D 1.8 ± 0.7 vs 2.2 ± 0.5 km.h^{-1}.
Discussion.– Our results suggest that physical activity improves gait parameters for the very elderly. Moreover, contrary to the results of the literature, no difference was observed in the responses to the program between demented patients and non-demented. This result can probably be explained by the particular characteristics of our study population living in EPHAD.

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CO40-007-e

Effect of a program of physical activities on the spatiotemporal parameters of walking in healthy 65-year-olds

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Keywords: Ageing; Physical activity; Parameters of walking
Introduction.– During the ageing, the modification of the parameters of walking is associated with the fragility and with autonomy. This deterioration is so marked that it is associated with cognitive disorders. The practice of a regular physical activity allows limiting these effects [1].
Objective.– Estimate the impact of a physical program of activities on the parameters of walking to healthy subjects of more than 65 years.
Subjects/Methods.– Thirty-five people: referent group (GT) ($n = 14$) (68.6 ± 4.9 years) and activity group (GAP) ($n = 21$) (71.3 ± 5.1years). The parameters of walking were registered with a triaxial accelerometer (Locometrix) on 40 m before and after the period of the study in simple and double task. The program of activity included exercises of endurance, strength, balance, (14 weeks, 3 sessions/week, 1 hour).
Results.– For the GT, the parameters do not show significant evolution. For the GAP, the parameters: frequency ($\Delta = 0.026$c/s), regularity ($\Delta = 27$), a symmetry ($\Delta = 33$), total power ($\Delta = 1.84$ W/kg) are improved after the program. The decrease of the walking speed in double task is less important for the GAP (ΔPre = 0.54/ΔPost = 0.27 m/s).
Conclusion.– This study shows that a program of activities allows the preservation, the improvement of the parameters of walking at the healthy elderly.
Reference
[1] Boyer F, et al. Gait Posture 2012;36:149–53.

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